AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

		1. Contract ID Code Firm-Fixed-Price	Page 1 Of 8

2. Amendment/Modification No. P00069	3. Effective Date 2004JAN22	4. Requisition/Purchase Req No. SEE SCHEDULE	5. Project No. (If applicable)

6. Issued By	Code	W56HZV	7. Administered By (If other than Item 6)	Code	S0101A

6. Issued By

```
TACOM  WARREN  BLDG 231
SFAE-CSS-LAV-B
DOUGLAS W. CLEVELAND (586)574-6834
WARREN, MICHIGAN 48397-5000

HTTP://CONTRACTING.TACOM.ARMY.MIL
EMAIL: CLEVELAD@TACOM.ARMY.MIL
```

7. Administered By

```
DCMA  HUNTSVILLE  BIRMINGHAM GROUP
BURGER PHILLIPS CENTER
1910 THIRD AVE. NORTH, RM 201
BIRMINGHAM, AL 35203-2376
```

SCD C   PAS NONE   ADP PT HQ0338

8. Name And Address Of Contractor (No., Street, City, County, State and Zip Code)

```
METRIC SYSTEMS CORPORATION
645 ANCHORS STREET
FORT WALTON BEACH, FL. 32548-9990
```

TYPE BUSINESS: Large Business Performing in U.S.

Code 12339	Facility Code

	9A. Amendment Of Solicitation No.
☐	
	9B. Dated (See Item 11)
☒	10A. Modification Of Contract/Order No. DAAE07-00-C-M010
	10B. Dated (See Item 13) 2000MAR20

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers

☐ is extended, ☐ is not extended.

**Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
(a) By completing items 8 and 15, and returning _____ copies of the amendments: (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.**

12. Accounting And Appropriation Data (If required)
SEE SECTION G

13. THIS ITEM ONLY APPLIES TO MODIFICATIONS OF CONTRACTS/ORDERS
It Modifies The Contract/Order No. As Described In Item 14.

KIND MOD CODE: C

☐	**A. This Change Order is Issued Pursuant To:**	**The Changes Set Forth In Item 14 Are Made In** The Contract/Order No. In Item 10A.
☐	**B. The Above Numbered Contract/Order Is Modified To Reflect The Administrative Changes (such as changes in paying office, appropriation data, etc.)** Set Forth In Item 14, Pursuant To The Authority of FAR 43.103(b).	
☒	**C. This Supplemental Agreement Is Entered Into Pursuant To Authority Of:** Mutual Agreement of the Parties	
☐	**D. Other (Specify type of modification and authority)**	

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return _____ copies to the Issuing Office.

14. Description Of Amendment/Modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

SEE SECOND PAGE FOR DESCRIPTION

Contract Expiration Date: 2007DEC31

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. Name And Title Of Signer (Type or print)	16A. Name And Title Of Contracting Officer (Type or print) MICHAEL T. FINNELL FINNELLM@TACOM.ARMY.MIL (586)574-8361

15B. Contractor/Offeror	15C. Date Signed	16B. United States Of America	16C. Date Signed
 (Signature of person authorized to sign)		By _____ /SIGNED/ (Signature of Contracting Officer)	2004JAN22

NSN 7540-01-152-8070	30-105-02	STANDARD FORM 30 (REV. 10-83)
PREVIOUS EDITIONS UNUSABLE		Prescribed by GSA FAR (48 CFR) 53.243

Name of Offeror or Contractor: METRIC SYSTEMS CORPORATION

SECTION A - SUPPLEMENTAL INFORMATION

MODIFICATION P00069

```
            PREVIOUS CONTRACT AMOUNT:          $51,100,029

            AMOUNT OF THIS MODIFICATION:       $   236,811

            NEW CONTRACT AMOUNT:               $51,336,840
```

Modification P00069 is issued to incorporate the following changes into the contract:

1. The Technical Manual Contract Requirement (TMCR), as set forth in Attachment 4 to the contract, is hereby deleted in it's entirety and replaced with a new TMCR.

   a. The revised Attachment 4 is included as part of this modification.

   b. CLIN, 2007, is increased by $236,811 to compensate the Contractor for this change.

      (1) The Integrated Logistics Support SLIN, 2007AA, is increased by $109,875, from $1,398,397 to $1,508,272.
      (2) SLIN 2007AE is created in the amount of $126,936.
      (3) Two different SLINs are required due to funding availability.

   c. The consideration included is added under the assumption that the Contractor will not be required to maintain the Technical Manuals (TMs) after 31 December 2004.

   d. Two Contract Options are added to the contract to allow for the possiblity that the Contractor will be required to maintain the TMs after 31 December 2004.

      (1) CLIN 2007AF is added to the contract as an option, in the amount of $24,879, for TM maintenance by the Contractor for Calendar Year 2005. This option may be exercised unilaterally by the Government any time prior to 1 December 2004.
      (2) CLIN 2007AG is added to the contract as an option, in the amount of $19,902, for TM maintenance by the Contractor for Calendar Year 2006. This option may be exercised unilaterally by the Government any time prior to 1 December 2005.

2. The overtime limit listed in the Section I provision Payment for Overtime Premiums (FAR 52.222-2), as incorporated by Modification P00061, dated 9 October 2003, is hereby increased by $10,000, from $10,000 to $20,000.

3. The parties agree that any and all claims for further contract adjustment for the actions incorporated by this modification, beyond the terms set forth in this modification, are hereby waived and released.

4. As a result of this modification, the total amount of the contract is increased by $236,811. All terms and conditions of the contract, other than those described above, remain unchanged.

*** END OF NARRATIVE A 069 ***

Name of Offeror or Contractor: METRIC SYSTEMS CORPORATION

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS				
2007AA	INTEGRATED LOGISTICS SUPPORT (ILS)	1	LO		$ 1,508,272.00
	CLIN CONTRACT TYPE: Firm-Fixed-Price NOUN: PHASE II ILS LAV SLEP PRON: T122T3154K PRON AMD: 05 ACRN: AL CUSTOMER ORDER NO: M9545002MP22049				
	Phase II ILS effort in accordance with contract paragraph C.25.				
	The Government option for the ILS effort is exercised under CLIN 2007AA by Modification P00028.				
	CLIN 2007AA is definitized at the ceiling amount of $1,398,397 by Modification PZ0056.				
	CLIN 2007AA is increased by $109,875, from $1,398,397 to $1,508,272, by Modification P00069. This increase is for the revised TMCR as incorporated by Modification P00069. The total amount for the revised TMCR, exclusive of options for 2005 and 2006, is $236,811. CLIN 2007AE was established by Modification P00069 for the remaining $126,936 due to funding availablity. The effective amount of the ILS effort, including CLIN 2007AE, is $1,635,208.				
	(End of narrative B001)				
	Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination				
	Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE 001 1 30-SEP-2005				
	$ 1,508,272.00				
2007AE	CONTINUATION OF 2007AA				$ 126,936.00
	CLIN CONTRACT TYPE: Firm-Fixed-Price NOUN: REVISED TMCR PRON: T132T5704K PRON AMD: 03 ACRN: AT				

Name of Offeror or Contractor: METRIC SYSTEMS CORPORATION

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	CLIN 2007AE is added by Modification P00069, in the amount of $126,936, for the revised TMCR as incorporated by Modification P00069. Only part of the total amount of $236,811 for this effort is included in this CLIN. The remaining $109,875 is included in the basic ILS CLIN, 2007AA. The reason all of the amount wasn't put on CLIN 2007AA is funding availability.				
	CLIN 2007AE is a continuation of the effort under CLIN 2007AA. Payment shall not be made under CLIN 2007AE until all funds under CLIN 2007AA have been exhausted.				
	(End of narrative B001)				
	Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination				
	Deliveries or Performance				
	DLVR SCH PERF COMPL REL CD QUANTITY DATE 001 0 30-SEP-2005				
	$ 126,936.00				
2007AF	REVISED TMCR – 2005 OPTION				$ 24,879.00
	CLIN 2007AF is established by Modification P00069 as an option for ILS effort resulting from the revised TMCR, as incorporated by Modification P0069, for the year 2005 if Technical Manual maintenance through that year is required of the Contractor.				
	(End of narrative B001)				
	Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination				
	Deliveries or Performance				
2007AG	REVISED TMCR – 2006 OPTION				$ 19,902.00

Name of Offeror or Contractor: METRIC SYSTEMS CORPORATION

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	CLIN 2007AG is established by Modification P00069 as an option for ILS effort resulting from the revised TMCR, as incorporated by Modification P0069, for the year 2006 if Technical Manual maintenance through that year is required of the Contractor. (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance				

Name of Offeror or Contractor: METRIC SYSTEMS CORPORATION

SECTION G - CONTRACT ADMINISTRATION DATA

LINE ITEM	PRON/ AMS CD/ MIPR	ACRN	OBLG STAT/ JOB ORD NO	PRIOR AMOUNT	INCREASE/DECREASE AMOUNT	CUMULATIVE AMOUNT
2007AA	T122T3154K M9545002MP22049	AL	2	$ 1,398,397.00	$ 109,875.00	$ 1,508,272.00
2007AE	T132T5704K	AT	2	$ 0.00	$ 126,936.00	$ 126,936.00
				NET CHANGE	$ 236,811.00	

SERVICE NAME	NET CHANGE BY ACRN		ACCOUNTING CLASSIFICATION	ACCOUNTING STATION	INCREASE/DECREASE AMOUNT
Marine Corps	AL	17	24110923780311080200674432D02379100002MP22049		$ 109,875.00
Marine Corps	AT	17	35110920383100080200674432D02380500003MP32021		$ 126,936.00
				NET CHANGE	$ 236,811.00

	PRIOR AMOUNT OF AWARD	INCREASE/DECREASE AMOUNT	CUMULATIVE OBLIG AMT
NET CHANGE FOR AWARD:	$ 51,100,029.00	$ 236,811.00	$ 51,336,840.00

Name of Offeror or Contractor: METRIC SYSTEMS CORPORATION

SECTION I - CONTRACT CLAUSES

Status	Regulatory Cite	Title	Date
I-1 DELETED 52.222-2		PAYMENT FOR OVERTIME PREMIUMS	JUL/1990
I.1 ADDED 52.222-2		PAYMENT FOR OVERTIME PREMIUMS	JUL/1990

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed $20,000 or the overtime premium is paid for work--

        (1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdown of production equipment, or occasional production bottlenecks of a sporadic nature;

        (2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

        (3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

        (4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall--

        (1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

        (2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

        (3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

        (4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

(c) For the purposes of this contract, the Contractor must obtain prior approval from the Contracting Officer before incurring overime premiums under the conditions outlined in (a)(1) through (4) above.

(End of clause)

*** END OF NARRATIVE I 001 ***

Name of Offeror or Contractor: METRIC SYSTEMS CORPORATION

SECTION J - LIST OF ATTACHMENTS

List of Addenda	Title	Date	Number of Pages	Transmitted By
Attachment 004	SLEP TMCR	18-DEC-2003		DATA

ATTACHMENT 4

TECHNICAL MANUAL CONTRACT REQUIREMENT (TMCR)

18 DECEMBER 2003

1.0 SCOPE. This Technical Manual Contract Requirement (TMCR) defines requirements for the Contractor in the preparation and delivery of full-up LAV TM data. TM data is required for the following LAV variants: LAV-25, LAV-AT, LAV-R, LAV-CC, LAV-L, LAV-M and LAV-AD. The TMCR sections address the following:
   a. Contractor activity and data deliverables during the R&D phase (Phase I) of the Contract
   b. Contractor activity and data deliverables during the Production phase (Phase II) of the Contract

1.1 General Requirements.

1.1.1 Full-up TM data are defined to include the following attributes:
   a. Full Integration of changes to current LAV TM data reflecting not only all LAV SLEP upgrades but also all non-SLEP ECPs and NAV MAC 10772 corrections submitted by the Government for inclusion. The TM data shall be so integrated that the changes cannot be detected from an examination of the published TM format and style alone.
   b. Changes to be integrated to existing LAV TM data shall include vehicle lubrication, operation, troubleshooting, maintenance, electrical schematics, parts data and other changes, as applicable.
   c. The Contractor is responsible for including all non-SLEP changes submitted by the Government between time of receipt of the current GFI LAV TMs and the Contractor cutoff date for final TM data delivery in Phase II.
   d. The Contractor is not responsible to search for and correct errors that already exist in the current TMs. However, the Contractor will correct small errors and shall notify the Government of significant errors uncovered during the course of TM data development. The Government and the Contractor shall determine how best to correct significant errors.
   e. The Contractor shall render all updated GFI TM data into TM data reflecting the style and format of the GFI TMs originally provided at the Start of Work meeting. The Marine Corps Style Guide [SG-1A] serves as a reference.

1.1.2 SLEP TM Data: The Contractors TM data shall be the baseline for generating SLEP-adjusted LAV TMs and IETMs.
   a. The Contractor shall render its SLEP-adjusted LAV TM data to reflect changes arising from scenarios as shown in Encl 1 of this TMCR.
   b. The Contractor shall provide updates to the Government which pertain to required non-SLEP changes in accordance with Encl 1.
   c. The Contractor shall develop a log for tracking changes to the technical manual, which must also be reflected in the Governments database for non-SLEP LAV TMs, as cited in Encl 1.

1.2 Government Furnished Information (GFI). The Government will provide camera-ready hardcopies of all applicable LAV TMs to the Contractor. The sheets of paper will be printed on one side only, to facilitate scanning into the Contractors database. TMs to be provided include LAV-25, LAV-AT, LAV-CC, LAV-R, LAV-M, LAV-L and LAV-AD.

1.3 Referenced Guidances. The Contractor may use the latest versions of the following documents to assist in its preparation of SLEP-adjusted LAV TM data:

MIL-PRF-28001   Performance Specification Markup Requirements
                  And Generic Style Specification for Exchange
                  of Text and its Presentation

MIL-PRF-38784   Manuals, Technical: General Style and
                  Format Requirements

MIL-STD-12   Abbreviations for use on Drawings and in
                  Specifications, Standards, and Technical
                  Documents

MIL-STD-1840   Interface Standard Automated Interchange of
                  Technical Information

SG-1A   U.S. Marine Corps Style Guide

MIL-STD-2361   Interface Standard, Digital Publications Development

MIL-PRF-28002   Requirement for Raster Graphics Representation in
                  Binary Format: Guidance on developing raster drawings.
                  To be used when working with existing illustrations.

MIL-D-28003   Guidance on developing vector graphics. To be used for
                   new illustrations.

1.4 <u>TM Data Development</u>.

1.4.1 The Contractor shall develop the following full-up LAV TM data during Phase I for all LAV variants specified in paragraph 1.0 of this TMCR: -10 Operators Manuals, -12 Lubrication Instructions, -20 Organizational Maintenance Manuals, -34 Intermediate Maintenance Manuals, -50 Depot Repair Standards, Vehicle-Specific components Lists (SL-3), and Parts Manuals (SL-4).

1.4.2 Technical documentation shall be written in simple, practical English. All terminology, symbols, and abbreviations shall be readily understandable by maintenance technicians. Use of abbreviations shall be defined the first time they appear in the text.

1.4.3 The Contractor shall develop SLEP-adjusted LAV TM data so that they are complete with front matter, text, tables, and illustrations. Front matter includes TM covers and promulgation letters. The Government will provide the Contractor with the necessary information. TM data shall include corrections resulting from the Logistics Reviews and/or any unscheduled In-Process Reviews.

1.4.4 In developing SLEP-adjusted TM data, the Contractor shall add, adjust, and/or delete data in the scanned GFI manuals to:
   a. Generate TM data for all specified LAV variants at all maintenance echelons
   b. Reflect the SLEP-adjusted LAV configuration.
   c. Provide narratives of LAV operation and maintenance tasks. This includes operation, lubrication, troubleshooting, electrical schematic(s) and removal/replacement and repair tasks and related maintenance data.
   d. Adjust the LAV SL-3s, SL-4s and related data contained in the GFI TMs to reflect LAV modifications. Vehicle-specific SL-3s are to be incorporated into the applicable -10 TM data as an appendix.
   e. Ensure the Contractors SLEP-adjusted LAV TM data retain the existing LAV TM formats. In cases where the Government guidance referenced in paragraph 1.3 describes formatting that differs with the format of the current LAV TMs, the Contractor shall adhere to the format of current LAV TMs.

1.4.5 <u>Graphics</u>. The Contractor shall render all graphics/illustrations that are GFI and/or Contractor-generated to a resolution of 600 dpi. The Contractor shall process graphics as follows:
   a. The Contractor shall use graphic identification numbers (GID) from its Government-assigned block of numbers for any SLEP-unique graphic or for any GFI graphic that has been re-drawn. The Contractor shall provide these graphics in TIFF format and in CGM format (version four, using the web CGM profile).
   b. The Contractor shall remove existing non-SLEP GIDs from any GFI graphic it has modified and replace them with GIDs from its Government-assigned block of numbers. The Contractor shall provide modified graphics in TIFF format.
   c. The Contractor shall maintain existing GIDs on any GFI graphic that it did not modify or replace. The Contractor shall provide these graphics in the TIFF format.

1.4.6 <u>TM Plan</u>. The Contractor shall prepare and submit a TM plan IAW ELIN A017. The Contractors plan shall include a TM outline for the data of each variant and the Contractors plan for developing SLEP-adjusted TM data that apply to the specified LAV variants. The TM outline shall identify the proposed layout and table of contents for TMs of each specified variant. The Contractor shall update the TM plan throughout its TM data development, as needed.

1.4.7 <u>Technical Manual Quality Assurance (QA) Plan</u>. The Contractor shall develop a QA plan to ensure that the TM data it develops and delivers under this Contract are produced IAW the current LAV TM style and format. The QA plan shall include Contractor support for applicable conferences, Logistics Reviews and IPRs. The Contractor shall make the QA plan available to the Government for review upon request. The Contractor shall update the QA plan throughout its TM data development and post on CITIS.

1.4.8 <u>Program Management</u>. The Contractor shall develop a schedule for Phase I and II development and delivery of SLEP-adjusted LAV TM data, to be incorporated into the existing program schedule.

1.4.9 <u>TM Validation/Verification</u>.

1.4.9.1 The Contractor shall perform a validation of the operation and maintenance tasks and related data it develops for LAV SLEP modifications. Contractor validation of non-SLEP TM data provided as GFI is not required, except for identification and correction of any errors due to scanning in hard copy data, as per Attachment 1. All Contractor validation shall be performed prior to the applicable Logistics Review. Validation shall include but not be limited to the following:
   a. Contractor's engineering technical review has been completed.
   b. Information shall reflect configuration of the system/equipment and shall include all engineering changes.
   c. Procedural instructions shall be readily understandable by the intended user and be adequate to perform all operation and maintenance functions.
   d. Data shall be checked to ensure that they support the approved maintenance and support plan.

1.4.9.2 The Government will verify Contractor-developed tasks and related data during Contractor-scheduled Logistics Reviews as described in paragraph C.15.5. The Government shall also perform sample verification of non-SLEP changes/manual data for purpose of identifying errors due to scanning in hard copy data in accordance with Attachment 1. The Contractor shall provide draft SL-4 pages IAW ELIN A011 and corrected TM and SL-4 pages IAW ELIN A012. The Contractor shall provide assistance and support during the Governments verification.

1.4.10 <u>Unscheduled In Process Reviews</u>. The Government may request up to five unscheduled IPRs at the Contractor site during the R&D and/or production phases to ensure that the Contractors TM development is IAW Contract requirements. The Contractor will host the IPR at its site NLT thirty days after Government notification. The Contractor shall provide support and access to publication materials and any source data. The Contractor shall record meeting minutes, decisions and/or discrepancies resulting from the IPRs and make the required adjustments to the TMs. The Contractor has the option to request additional IPRs if it requires assistance in developing the TM data.

2.0 PHASE I: R&D. This phase consists of:
   a. Development of all LAV operator and maintenance tasks and related data
   b. Insertion of applicable change pages into existing LAV TMs for use during training and DT/OT
   c. Completion of first draft TMs

2.1 <u>Data Item Deliverables</u>. The Contractor shall deliver the following data items in accordance with Contract ELINs and the contents of this TMCR:
   a. TM plan
   b. TMs that support SLEP DT/OT training and test effort
   c. Interim, full-up TMs at the end of DT/OT

2.2 <u>Validation</u>. The Contractor shall validate all tasks and related data in accordance with paragraph 1.4.9. The Contractor shall ensure that all operation, preventive maintenance and remove/replace tasks and related data are validated prior to the beginning of DT. The Contractor shall complete validation of organizational level repair prior to the beginning of OT.

2.3 <u>Verification</u>. The Government shall verify all tasks and related data in accordance with paragraph 1.4.9. The Contractor must provide all operation, preventive maintenance and repair/replacement tasks and related data for Government review prior to the beginning of DT/OT.

2.4 <u>TM Hardcopy Deliverables</u>. The Contractor shall deliver full-up draft hardcopies of the TMs as shown below:

2.4.1 <u>At the Start of DT</u>. The Contractor-adjusted TMs shall:
   a. Provide complete directions for operating, troubleshooting, preventive maintenance and removal/replacement of SLEP components.
   b. Contain SL-4 and related maintenance data that are developed in conjunction with the above operation and maintenance tasks.

QTY	Location	LAV-25 Manuals
25ea	DT Training Site	-10 Operator Manual
		-12 Lubrication Instruction
		* -20 Organizational Manual
		* -34 Intermediate Manual
		SL-4 Parts Manual
1ea	PM LAV SFAE-GCS-LAV WARREN, MI 48397-5000	One copy of each TM above
1ea	Commander, Code PSD-M2 MARCORSYSCOM	One copy of each TM above
1ea	Commander Code 835 Materiel Command (MATCOM)	One copy of each TM above

* As required in order to complete operation, preventive maintenance, troubleshooting and removal/replacement.

2.4.2 <u>At the Start of OT</u>. The Contractor shall provide SLEP-adjusted TMs conforming to the description in paragraph 2.4.1 to the OT test site at the beginning of OT training as shown below.

QTY	Location	LAV-25 Manuals
25ea	OT Training Site	-10 Operator Manual
		-12 Lubrication Instruction
		-20 Organizational Manual [includes
		organizational repair]
		* -34 Intermediate Manual
		SL-4 Parts Manual

* As required in order to complete operation, preventive maintenance, troubleshooting and removal/replacement.

2.4.3 <u>TMs for LAV Variants</u>. The Government will coordinate with the Contractor if DT/OT is to include testing of variant(s) in addition to the LAV-25. In this case, the Contractor shall deliver SLEP-adjusted TMs for the variant(s) to be tested which conform to the requirements described for LAV-25 TMs above.

2.4.4 <u>Interim TMs</u>. The Contractor shall deliver completed, full-up hard copy LAV TMs and SL-4s for all LAV variants specified in paragraph 1.0, to reflect all SLEP modifications and non-SLEP changes at the end of OT IAW the following distribution:

Qty	Location	Media
1ea	PM LAV	-10 Operator Manual
	SFAE-GCS-LAV	-12 Lubrication Manual
	WARREN, MI 48397-5000	-20 Organization Manual
		-34 Intermediate Manual
		-50 Depot Manual
		SL-4 Parts Manual
1ea	Commander,	One copy of each TM above
	Code PSD-M2	
	MARCORSYSCOM	
1ea	Commander	One copy of each TM above
	Code 835	
	Materiel Command (MATCOM)	

2.4.5 <u>TM Data</u>. The Contractor shall deliver CD ROMs at the end of Phase I which contain all task narratives and related data that were used to generate the interim TMs for all LAV variants specified in paragraph 1.0, to the addressees and in the quantities listed in paragraph 2.4.4.

3.0 Phase II: PRODUCTION. This phase consists of finalization and delivery of Government-approved LAV TM data. This includes:
   a. Delivery of the final draft of LAV TM data. The draft shall include all adjustments resulting from SLEP and from all changes that the Contractor made to non-SLEP LAV TM data.
   b. Delivery of TM data of any Government-approved change to the LAV SLEP configuration that   occurs after the final draft.
   c. Delivery of final draft of LAV TMs, with changes, to support Product Verification Testing (PVT).

3.1 <u>Data Item Deliverables</u>.
   a. The Contractor shall deliver the final draft of LAV TM data as:
     - SLEP-adjusted pages will be annotated with the TM ID numbers provided as GFI [B designation]. The change designation in the footer will reflect LAV-SLEP CHANGE. Change pages will be inserted into the a designated FOLAV TMs. Cover pages will be watermarked DRAFT.
     - One-sided, full-up, SLEP-adjusted LAV TM pages no less than reproduction quality of the GFI received and in accordance with this TMCR.
     - Two-sided, full-up, SLEP adjusted TM pages in accordance with this TMCR.
     - SGML-tagged data that the Contractor completed in Phase I. Data shall be provided on CDs and shall include all vehicle variants and all echelons, as specified in paragraph 1.4.1.
     - All change pages generated as a result of SLEP modifications and from adjustments that the Contractor made to non-SLEP LAV TM data shall be submitted in a version of Microsoft Word that is compatible that is acceptable to the Government. The text and/or data should be rendered so that it reflects the appearance of printed LAV TM pages.
   b. The Contractor shall deliver all adjustments to LAV TM data (submitted after publication cutoff date for the final draft) as marked-up changes to hardcopy text/data and as change pages rendered in Microsoft Word.

3.2 <u>Validation/Verification</u>. The Contractor shall complete validation of all SLEP operator/maintenance tasks and related SLEP TM data

in accordance with section 1.4.9. This shall include all SLEP design and/or task changes resulting from DT/OT. The Contractor shall schedule Logistics Reviews so that the Government can complete its verification prior to TM data delivery.

3.3 <u>TM Identification and Publication Numbers</u>. The Contractors LAV TM data shall reflect its own SLEP-unique identifiers and designations. The Government will provide the Contractor as GFI the unique designators that the Contractor shall include in the appropriate locations in the TM data. GFI will include vehicle NSNs for SLEP-upgraded LAVs, TM ID numbers, PCNs and TAMCNs.

3.4 <u>TM Data Delivery</u>.
   a. The Contractor shall deliver the final draft of LAV-25 data, and an interim draft of all other variant TM data identified in paragraph 3.1a as indicated below by NLT 1 Jul 02. The data shall include all SLEP and non-SLEP changes either generated by the Contractor or submitted to the Contractor by the Government by 15 Jun 02. The Contractor shall not be responsible for incorporating non-SLEP changes after this date. Distribution of deliverables is as follows:

<u>Qty</u>	<u>Location</u>	<u>Media</u>
2ea	MARCORSYSCOM Code: PMO-LAV Albany 814 Radford Blvd. STE 20343 Albany, GA 31704-0371	Hardcopy TMs Microsoft Word change pages
1ea	PMO, LAV SFAE-GCS-LAV 6501 E 11 Mi Rd Warren, MI, 48397-5000	Hardcopy TMs
1ea	Commander MARCORSYSCOM Attn: ACAL (Log) 2033 Barnet Ave, Suite 315 Quantico, VA 22134-5010	Hardcopy TMs
1ea	Data Conversion Laboratory 184-13 Horace Harding Expway Fresh Meadows, NY 11365 Attn: Petina Cohen	Camera-ready TMs on one-sided pages SGML-tagged data Microsoft Word change pages
1ea	Carderock	Hardcopy TMs SGML-tagged data Microsoft Word change pages

   b. The Contractor shall deliver two copies of all adjustments to the LAV TM data approved after 15 Jun 02 as change pages as hardcopies and in Microsoft Word, with the changes clearly marked (using bars on the side of the change). Changes include Phase I design changes, ECPs, corrections, and changes resulting from Phase II log reviews. The change page data shall be delivered to the Albany organization shown in paragraph 3.4a.
   c. The Contractor shall provide sets of hardcopy TMs to support Product Verification Testing (PVT). The hardcopy TMs shall be based upon the Contractors final draft TMs. Into the hardcopy TMs the Contractor shall inserted change pages that are generated by approved ECPs, Phase II log reviews and corrections which occur after publication cut-off for the final draft TMs. The Contractor shall deliver 25 complete sets of TMs to the PVT training site for use during training and testing.

Technical Manual Contract Requirement - Encl 1:
Tech Manual Configuration Management
PM-LAV

1. Background: The initiation and development of SLEP upgrades for the USMC LAV family of vehicles mandates careful management of changes to the TM databases if we are to ensure that the final TMs accurately reflect the eventual SLEP LAV configuration. To accomplish this, we must develop procedures to address the various scenarios, identified below, which might arise to contaminate them.

2. Assumptions:

   a. The Government and the Contractor must both manage separate databases until the Contractor delivers the TM data referenced in TMCR para. 3.1 (a). After this delivery, the Contractor shall continue to provide SLEP changes IAW TMCR para. 3.1 (b).

      b. The Contractors full-up, SLEP-adjusted LAV TM data will be rendered by the Government and its contractors to generate TMs and IETMs.

      c. The Government and the Contractor each develop a TM data Configuration Log which will be used to track those changes initiated by either party which impact their TM data.

      d. The Government and the Contractor will periodically review and reconcile their respective Configuration Log entries.

   f. The Contractor shall maintain its log on CITIS.

3. CM Procedures: The following procedures apply for each of the scenarios described below:

   a. The Contractor inserts SLEP change pages:
      (1) Background: The Contractor is developing changes to LAV TMs to reflect all SLEP upgrades. These changes include:
         (a) Insertion of SLEP-related tasks
         (b) Changes to existing non-SLEP tasks which are impacted by SLEP upgrades
         (c) Changes to maintenance data driven by SLEP upgrades, such as NSNs, part numbers, SMRs and related codes
      (2) Data flow:
         (a) SLEP-Related Tasks: The Contractor will develop operator and maintenance and related data to reflect LAV SLEP configuration and support.
         (b) Changes to Non-SLEP Tasks: The Contractor will make and incorporate the necessary changes prior to final release of TM data.
         (c) Changes to Maintenance Data: The Contractor will incorporate the necessary changes prior to final release of TM data.
      (3) Configuration Control:
         (a) Contractor: Total responsibility for developing and maintaining configuration until final TM data delivery. Adjusts TM data IAW Government reviews and/or verification. Forwards the Government hardcopy change pages and/or marked-up hardcopy TM pages resulting from logistics reviews.
         (b) Government: Impacts TM data configuration control through reviews and verification. Assumes TM data configuration management no earlier than the Contractors delivery of final TM data.
         (c) Configuration Logs: No entry required.

   b. The Contractor initiates SLEP ECPs:
      (1) Background: The Contractor may need to adjust its designs for SLEP upgrades. The Contractor will use use ECPs, waivers and deviations as required in Section C of the Contract.
      (2) Data flow: The Contractors ECPs will be reviewed and/or approved by the Government. The Contractor will forward the Government all applicable marked-up TM pages for changes after ECP approval for any ECPs approved after 1 Jun 02.
      (3) Configuration Control:
         (a) Contractor: Total responsibility for developing and maintaining configuration until final TM data delivery. Adjusts TM data IAW Government review and/or approval.
         (b) Government: Reviews approved ECPs in light of future non-SLEP design changes.
         (c) Configuration Logs: No entry required.

   c. The Contractor uncovers minor TM errors:
      (1) Background: As it develops SLEP-adjusted TM data, the Contractor may uncover minor errors in the GFI TMs.
      (2) Data flow: The Contractor will correct the error and forward the change pages to the Government for incorporation into its non-SLEP TM database.
      (3) Configuration Control:
         (a) Contractor: Incorporates corrections into its SLEP-adjusted LAV TM data.
         (b) Government: Incorporates the Contractors corrections into its non-SLEP LAV TM data.

      (c) Configuration Logs: No entries are required.

  d. The Contractor does Validation/Verification on scanned TM pages [checking for scan errors]:
    (1) Background: The Contractor used sophisticated programs to scan and digitize our GFI TMs so that it could more easily render the SLEP-adjusted TMs. Errors arising from this edit process may creep into the final TMs.
    (2) Data flow:
      (a) Any verification that the Government might conduct will use statistical sampling techniques. Verification will be restricted to tabletop review of only those errors which might be the result of GFI TM scanning. The Government will determine the percentage figures for review and acceptance/rejection and notify the Contractor prior to the review.
      (b) If the SLEP-adjusted LAV TM data is verified, then the review is complete.
      (c) If the SLEP-adjusted TM database fails verification, then the Contractor will upgrade the entire SLEP-adjusted TM database and submit the result to the Government for further statistical sampling verification.
    (3) Configuration Control:
      (a) Contractor: Corrects all errors in the SLEP-adjusted LAV TM data that were identified by the Government.
      (b) Government: No impact on the non-SLEP LAV TM data.
      (c) Configuration Logs: No entry required.

4. When the following conditions are found, the Contractor will notify the Contracting Officer for further direction. The Contractor is not obligated to make corrections in any of the following scenarios without an equitable adjustment to the contract price:

  a. The Contractor uncovers major TM errors:
    (1) Background: As it develops SLEP-adjusted TM data, the Contractor may uncover serious errors in the GFI TMs.
    (2) Data flow:
      (a) The Contractor notifies the Government that a serious error exists in the TM data.
      (b) The Contractor and the Government determine how best to correct the error.
        - If the Contractor is to correct the error, then it makes an adjustment in its TM data after the Government reviews/approves it. The Contractor then forwards change pages to the Government for incorporation into the non-SLEP TM database.
        - If the Government corrects the error then it forwards the Contractor the adjustment as one-sided, camera-ready change pages just after it adjusts its non-SLEP database.
        - A procedure is established for comparing and reconciling Government and Contractor TM data configuration logs.
    (3) Configuration Control: Since Government and Contractor TM databases are impacted, it is imperative that changes initiated by one party are immediately forwarded to the other.
      (a) Contractor: Incorporates Government-initiated changes into its SLEP-adjusted LAV TM data.
      (b) Government: Incorporates Contractor-initiated changes into its non-SLEP LAV TM data.
      (c) Configuration Logs: Entries required.

  b. The Government initiates Non-SLEP ECPs:
    (1) Background: The Government may process and approve non-SLEP ECPs which must be included in the final SLEP-adjusted LAV TM data.
    (2) Data flow:
      (a) The Government provides the Contractor with an information copy of the approved ECP.
      (b) The Contractor reviews the ECP to determine possible impact to SLEP configuration. If there is an impact, then the Contractor follows procedures as outlined in paragraph 3b above.
      (c) Upon publication of the applicable changes, the Government forwards the Contractor one-sided, camera-ready change pages for incorporation into its SLEP-adjusted LAV TM data.
    (3) Configuration Control:
      (a) Contractor: Posts changes to its SLEP-adjusted LAV TM data.
      (b) Government: Posts changes to its non-SLEP LAV TM data.
      (c) Configuration Logs: Entries required.

  c. Albany receives NAV MAC 10772 corrections from field:
    (1) Background: Often the field will identify errors in LAV TMs which are corrected and published as change pages.
    (2) Data flow: The Government will forward change pages to the Contractor upon publication.
    (3) Configuration Control:
      (a) Contractor: Incorporates corrections into its SLEP-adjusted LAV TM data.
      (b) Government: Incorporates corrections into its LAV TM data.
      (c) Configuration Logs: Entries required.

  d. The Government discovers errors resulting from the most recent TM updates:
    (1) Background: A number of changes submitted for inclusion in the GFI TMs did not post or were posted incorrectly. Based upon cursory reviews, the errors seem to be confined to tables and other data such as part numbers and NSNs.
    (2) Data flow:
      (a) The Government shall compare changes it submitted for publication with what actually was published.

    (b) All errors and omissions should be identified.
    (c) The Government forwards corrected non-SLEP TM data to the Contractor at the time it publishes the change pages.
(3) Configuration Control:
    (a) Contractor: Updates its SLEP-adjusted LAV TM data upon receipt of Government change pages.
    (b) Government: Updates its non-SLEP LAV TM data.
    (c) Configuration Logs: Entries required.